



ALYRA RENEWABLE ENERGY FINANCE ADVISORS

Financing Wind Power Projects Perspectives From the US Market

Presented by:

Mohammed Alam
Alyra Renewable Energy Finance Advisors

CanWEA Conference
October 20, 2004
Montreal, Canada

An introduction to Alyra

Alyra assists renewable energy developers formulate strategies to achieve the most competitive solutions in finance and strategy.

Recent Assignments	Core Competencies	Scope of Services
<ul style="list-style-type: none">• Advising Tenaska, a major power developer, on wind power business deployment and structural issues.• Advising McKnight Foundation on investment options in the wind power sector.• Advised Clipper Windpower, a major wind power project and technology developer, on potential joint venture opportunities.• Advised Platts, a global energy think tank owned by McGraw Hills, on the structural issues and emerging trends in the US renewable power industry. The work will culminate in a forthcoming major publication by Platts.• Advised Jasper Energy on wind project financial structuring.• Advised Invenergy, a major development company, on financing of a wind project in Tennessee.	<p>Broad Renewable Finance Expertise</p> <ul style="list-style-type: none">▪ Financing strategy▪ Structuring & Execution▪ Transaction negotiation▪ Restructuring <p>Deep Knowledge of Markets</p> <ul style="list-style-type: none">▪ Bank market▪ Institutional investor market▪ Tax investor market▪ Structural requirements in all markets <p>Significant Wind Industry Network</p> <ul style="list-style-type: none">▪ Developers seeking Capital▪ Investors seeking investment and partnering opportunity	<p>Be the “Ideas Shop”</p> <ul style="list-style-type: none">▪ Identify emerging issues▪ Help position as “first mover”▪ Risk diversification strategies <p>Complete Financing Solutions</p> <ul style="list-style-type: none">▪ Optimize capital structures▪ Identify debt/equity underwriters▪ Strategize market approach▪ Negotiate financing transactions▪ Effective financing execution <p>Contract Negotiations</p> <ul style="list-style-type: none">▪ Project contracts▪ Partnerships▪ Joint ventures



Introduction

Salient features of wind financing

- Capital intensive, low operating cost and variable cash flow.
- Sources of revenue include power sales, REC sales and PTC/WPPI monetization payments – all dependent on wind.
- How is this variability managed and who takes the wind risk?
- US transactions are very tax driven, unlike Canada.



Principal issues

Wind assessment

- Site data and reference data.
- Quality of data vs. length of data.
- Lack of quality data could reduce debt capacity.
- Continued reference data is important in future valuations.



Principal issues

Offtake arrangements

- Offtaker credit profile is the prominent issue in both debt and tax equity market.
- Fixed price PPA. Inflation adjustment important, especially if prices are low.
- Curtailment risk – banks would not take unless the probability of curtailment / congestion is remote.
- Schedule imbalance risk – trend is to shift the risk to the project.



Principal issues

Equity considerations

- US vs. Canadian wind equity markets – a gulf of difference
- Sources of equity
- Equity structures
- Rates of equity



Principal issues

US Wind Debt markets

- Markets of execution.
- Market liquidity/flexibility.
- Debt markets slowly expanding in the US.
- First ever public rating of wind financing in 2003.

Market	Product	Deal Size	Tenor	Pricing	Most Active Players
Commercial Bank	Senior Secured Floating Rate Loan	\$100 - \$150 MM	10 – 15 Yrs	L + 150 - 200 bps	8 - 10 banks, Mostly European
Institutional Private Placement	Senior Secured Fixed Rate Loan	\$50- \$150 MM	12 – 20 Yrs	T + 300 - 325 bps	4-6 Life Insurance Cos, mostly Canadian
Capital Markets	Senior Secured Long Term Bond	\$300 - 400 MM	12 – 20 Yrs	T + 300 bps	Traditional Institutional Investors, including hedge funds, mutual funds, pensions.



Financing options

Longer term bank financing

Financing Amount:	Up to US\$ 200 million.
Maturity:	10–15 years
Interest Margin:	LIBOR plus (1.5% - 2.00%) + with step-ups
Amortization:	Based on a 10–15 year amortization profile, according to a semi-annual schedule commencing six months from Financial Close.
DSCR:	1.50x - 1.75x based on wind volatility and offtaker credit
Reserve Accounts:	6–12 month Debt Service Reserve 6 month O&M Reserve Non-Routine Expenditure Reserve Distribution Reserve



Financing options

Combined bank and private placement financing

Financing Amount:	Tranche A (Bank): \$50 - 100 million Tranche B (Institutional): \$50 - 100 million
Maturity:	Tranche A: 10–12 years Tranche B: 12–18 years
Interest Margin:	<u>Tranche A</u> LIBOR plus (1.75% - 2.00%) per annum with usual step-ups <u>Tranche B</u> Treasury plus [TBD] % per annum
Amortization:	Sculptured, to reach DSCR targets. Tranche B is mostly back ended whereas Tranche A is relatively flat.
DSCR:	1.50x – 1.75x, based on wind volatility and offtaker credit
Reserve Accounts:	6–12 month Debt Service Reserve 6 month O&M Reserve Non-Routine Expenditure Reserve Distribution Reserve



Recent Debt Market Activity

Date	Project	Debt Size (US\$)	Capacity (MW)	Sponsor	Tax Equity	Avg DSCR	Term	Pricing
Jul-03	American Wind, CA, TX, MN, NM, WI & IA	380.0	697.0	FPL	FPL	1.5	20	T+295 bps (6.64%)
Sep-03	Northern Wind, MN	82.2	97.5	enXco	BankOne	1.4	15	L + 175 / 212.5
Oct-03	Colorado Green, CO	128.0	162.0	Shell/PPM	Shell/PPM	1.6	14	L + 175 / 212.5
Nov-03	Trent Wind Farm, TX	74.3	150.0	AEP	AEP	1.5	8	L+ 200 / 250
Dec-03	Stateline, WA & OR	126.0	300.0	FPL	FPL	1.6	14	L+ 175 / 212.5
Jul-04	Brazos, TX	87.5	160.0	Shell/Mitsui	Shell/Mitsui	1.5	9.5	L+ 175 / 212.5
Aug-04	Three Wind Holdings, CA & WY	123.2	152.4	Shell/Goldman Sachs	Shell/Goldman Sachs	1.5	15	L + 150 / 200



Alyra Renewable Energy Finance Advisors

Mohammed J. Alam
President
107 Blackman Road
Ridgefield, CT 06877
203 403 1002
mohammedalam@alyra.net

